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parameters. The molecular masses of SBA/a and SBA/b were determined by ESMS to be 23,550 and 23,560, respectively. The isoelectric points (pI) of the two bands of SBA/a were 4.8 and 4.9. SBA/b focused as a single band at pI = 4.8. Partial N-terminal amino acid sequences (11 residues) were identical to SBA/a and SBA/b and identical with those of stem bromelain (e.g., the basic main proteinase of the pineapple stem) and fruit bromelain (e.g., the acidic main proteinase of the pineapple fruit). Both components are highly glycosylated. Hydrolysis of SBA/a yielded about twofold more monosaccharide per protein than SBA/b. The comparison of the catalytic properties of SBA/a with those of SBA/b revealed no relevant differences in the hydrolysis of three peptidyl-NH-Mec substrates and in the inhibition profiles using chicken cystatin and E-64, thus indicating that these components can be considered as two forms of a single enzyme. Both forms are not inhibited very much by chicken cystatin and are slowly inactivated by E-64 and thus are nontypical cysteine proteinases of the papain superfamily.

Please replace the paragraph beginning on page 9 at line 22 with the following rewritten paragraph:

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Thrombocytes isolated from human whole blood are marked with the fluorescence dye 2,7-bis-(2-carboxyethyl)-5,6-carboxyfluoresceinacetoxymethylester. Permanent BKEz-7 bovine aorta cells (11th-22nd passage) are pipetted into a 96 microtiter plate with 60,000 cells per recess and are incubated overnight. For the thrombocytes-endothelium cell-adhesion-assay 5×10^7 thrombocytes after an incubation time of 15 min. at 37°C are optimal. The removal of the non-bonded thrombocytes is effected by washing the cells with KRB-buffer (Krebs-Ringer-bicarbonate buffer with 5.6 mMol Glucose + 1 % BSA) twice.

In the Claims:

Please add claims 7-12 as follows:

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7. (Newly Added) A method for inhibiting blood coagulation comprising administering a therapeutically effective amount of a composition including a bromelain protease to a subject in need thereof wherein the bromelain protease includes a basic bromelain protease that has a molecular weight of about 24.4 KDa, an optimal activity at a pH ranging from about 4 to about 5.5 and a SEQ ID NO: 1.

↓
composition is only 20 A:

8. (Newly Added) The method of claim 7 wherein the blood coagulation is inhibited by stimulating plasmin production.

9. (Newly Added) The method of claim 7 wherein the blood coagulation is inhibited by inhibiting fibrin production.

10. (Newly Added) The method of claim 7 wherein the blood coagulation is inhibited by inhibiting adhesion of thrombocytes on endothelium cells.

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11. (Newly Added) A medicament comprising a composition including a bromelain protease wherein the bromelain protease includes a basic bromelain protease that has a molecular weight of about 24.4 KDa, an optimal activity at a pH ranging from about 4 to about 5.5 and a SEQ ID NO: 1.

12. (Newly Added) The medicament of claim 11 wherein the bromelain protease is a recombinant bromelain protease.

Please cancel claims 1-6 without prejudice or disclaimer.